

POLUZAKOVA, A. P.

20944 Zhedenov, V. N. i Poluzakova, A. E. Porra okoloushnoy zhelezny, Khod yeye protoka i ego vzaimoraspolzheniye v oblasti litsa s litsevymi sosudami u domashnikh melkikh zhvachnykh: guets i koz, v sravnitel'-no-anatomicheskom ooveshehenii. Trudy odes. s.-kh. in-ta, t. V, 1948, s. 161-73.--Bibliogr: s.173

SO: LETOPSI JOURNAL STATY - Vol. 28, Moskva, 1949

GINZBURG, I.I.; MUKANOV, K.M.; POLUZEROV, N.P.

Copper and lead in soils of the Uspenskiy copper deposit in central Kazakhstan. Geokhimiia no.4:339-344 '60. (MIRA 13:10)

1. Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, Academy of Sciences, U.S.S.R., Moscow.
(Uspenskiy region--Copper ores)
(Geochemical prospecting)

DAVYDOV, Samuil Uriyevich; KOPYLOVA, Anastasiya Korneyevna; SAFONOV, Anatoliy Fedorovich; CHURILIN, I.N., red.; POLYACHEK, Ya.G., red.; SHVETSOV, V.G., red. izd-va; KOZLENKOVA, Ye.I., ~~tekh.~~ red.

[Technology, sanitation and hygiene of sausage production]
Tekhnologiya, sanitariia i gigiena kolbasnogo proizvodstva.
Moskva, Izd-vo Tsentrosoiuza, 1962. 151 p. (MIRA 15:4)
(Sausages) (Meat industry—Hygienic aspects)

POLYACHEK, Yakov Grigor'yevich; VOINTSVAYG, G.Ye., red.; BALDINA, N.F.,
tekh.n.red.

[Home preparation and preservation of food] Prigotovlenie i
khranenie pishchi doma. Moskva, Gos.izd-vo med.lit-ry Medgiz,
1960. 67 p. (MIRA 14:2)

(Food)

POLYACHENKO, A.V.; ZLOTIN, Yu.A.; SOKOLOV, G.F.

Use of a VAGG-15/600 germanium rectifier as current feed source
for built-up welding operations. Avtom. svar. 15 no.3:79-83
Mr '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii
sel'skogo khozyaystva. (Electric welding)

POLVACHENKO, A.V.

✓ 939 Electrosark Surface Hardening of Machine De-
vils. A.V. Polvachenko, Henry Brucher Translation No. 3840,
5 p. (From Voprosy Mashinostroeniya, v. 34, no. 7, 1955, p.
11-70.) Henry Brucher, Alhadena, Calif.
MG Surface hardening of C steels and gray iron by electrosarking.
Using cemented-carbide electrodes of different compositions
(WC plus various Co contents and different TiC additions).
Effects on mechanical properties; applications Tables, graphs,
micrographs. 5 ref.

of

POLYACHENKO, A.V., kand.tekhn.nauk; SOKOLOV, G.F., inzh.

Reconditioning tractor parts by built-up welding with a
weaving arc. Svar. proizv. no.10:34-36 0 '61. (MIRA 14:9)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut.

(Tractors—Maintenance and repair)

(Electric welding)

GORB, T. F.; POLYACHENKO, M. M.; USKOVA, Ye. T.; ARTEMENKO, M. V.

Changes in ~~some~~ physicochemical properties of syrup occurring during filtration through kieselguhr. Izv.vys.ucheb.zav.; pishch.tekh. no. 2:60-61 '64. (MIRA 17:5)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti, kafedra obshchey i neorganicheskoy khimii.

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S/078/61/006/008/010/018
B127/B220

AUTHORS: Novikov, G. I., Polyachenok, O. G.

TITLE: Thermographic method of measuring the pressure of saturated vapors of difficultly volatile compounds

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 8, 1961, 1951-1952

TEXT: The authors used the "boiling point" method which has the advantages of the method by L. G. Berg (Ref. 2: IZV, Sektory fiz.- khim. analiza, 22, 140 (1953)). This method makes it possible to determine the moment when the vapor pressure of the substances equals the pressure outside the reaction vessel. In the present case, this moment was determined from the temperature drop of the substances, which occurred with their increasing evaporation near boiling point. The apparatus required is shown in Fig.1. When experimenting with hygroscopic and easily oxidizable substances, the reaction vessel is connected to a vacuum apparatus and filled with pure and dry nitrogen. The current from the differential thermocouple is measured by a mirror galvanometer of 10^{-9} a/mm·m sensitivity. Gradual pressure drop was effected in the system at constant temperature, and the

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Thermographic method of...

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values of the manometer (p) and the galvanometer (I) were plotted in a diagram. On reaching the boiling point, the substance practically does not volatilize from the operating room, and the corresponding curve in the coordinate system is a straight line parallel to the p-axis. The diffusion current of the substance changes at the boiling point in proportion to the difference between saturated vapor pressure and gas pressure in the whole system, and corresponds to the second straight line which encloses an angle of about 100° with the first one. The point of intersection of the two straight lines corresponds to the saturated vapor pressure of the substance tested. There are 2 figures, 1 table, and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to English-language publications reads as follows: Handbook of Chemistry and Physics, 37 ed. (1955-1956).

ASSOCIATION: Leningradskiy gosudarstvennyy universitet Khimicheskoy
fakul'tet (Leningrad State University Chemical Division)

SUBMITTED: April 11, 1960

Card 2/3

POLYACHENOK, O.G.; NOVIKOV, G.I.

Saturated vapor pressure in the systems LaCl_3 - La, PrCl_3 - Pr, NdCl_3 - Nd. Zhur. neorg. khim. 8 no.7:1785-1786 JI '63.
(MIRA 16:7)

1. Leningradskiy gosudarstvennyy universitet, khimicheskii fakul'tet.

(Rare earth chlorides) (Vapor pressure)

NOVIKOV, G.I.; POLYACHENOK, O.G.; FRID, S.A.

Melting diagrams of the systems formed by di- and trichlorides
of samarium and ytterbium with potassium chloride. Zhur. neorg.
khim. 9 no.2:472-475 F'64. (MIRA 17:2)

1. Leningradskiy gosudarstvennyy universitet, khimicheskiy
fakul'tet.

L 17002-63

EWP(q)/LWT(m)/BDS AFFTC

JD/JW/JG

S/078/63/008/005/002/021

AUTHOR: Novikov, G. I. and Polyachenok, O. G.

58
57

TITLE: A study of NdCl_3 -Nd and PrCl_3 -Pr system

PERIODICAL: Zhurnal neorganicheskoy khimii, v. VIII, no. 5, May 1963, 1053-1059

TEXT: For the systems referred to in the title the authors obtain isotherms of vapor pressure at 1180°. By using the obtained thermographic and tensimetric data, the authors computed values of heat content (ΔH_{298}^0) and free energy (ΔF_{298}^0) for the formation of the solid dichlorides NdCl_2 and PrCl_2 :

$$\Delta H_{298}^0 = -169 \pm 3 \text{ kcal/mol} \text{ \& } -167 \pm 3 \text{ kcal/mol}$$

$$\Delta F_{298}^0 = -158 \pm 4 \text{ kcal/mol} \text{ \& } -156 \pm 4 \text{ kcal/mol.}$$

There are 4 figures and 4 tables. The most important English-language reference reads as follows: L. L. Quill, the Chemistry and Metallurgy of Miscellaneous Materials, 1950.

Card 1/1; ASSOCIATION: The Leningrad State University, Chemistry Department

NOVIKOV, G.I.; POLYACHENOK, P.G.

Investigation of the systems NdCl_3 - Nd and PrCl_3 - Pr. Zhur.-
neorg.khim. 8 no.5:1053-1059 My '63. (MIRA 16:5)

1. Leningradskiy gosudarstvennyy universitet, khimicheskiy fakul'tet.
(Neodymium chlorides) (Praseodymium chlorides)

POLYACHENOK, O.G.; NOVIKOV, G.I.

Saturated vapor pressure of metallic samarium. Zhur. ob. khim.
33 no.8:2796-2797 Ag '63.

~~D~~ichlorides of rare-earth elements. 2797 (MIRA 16:11)

1.Leningradskiy gosudarstvennyy universitet.

NOVIKOV, G.I.; POLYACHENOK, O.G.

Study of the PrCl_3 - Pr system. Zhur.neorg.khim. 7 no.5:
1209-1210 My '62. (MIRA 15:7)

1. Leningradskiy gosudarstvennyy universitet, khimicheskiy
fakul'tet.

(Praseodymium chlorides) (Praseodymium)

NOVIKOV, G.I.; POLYACHENOK, O.G.

Thermographic method for measuring the saturated vapor pressure of
difficultly volatilizable substances. Zhur.neorg.khim. 6
no.8:1951-1952 Ag '61. (MIRA 14:8)

1. Leningradskiy gosudarstvennyy universitet, khimicheskiy fakul'tet.
(Vapor pressure)

NOVIKOV, G.I.; ANDREYEVA, N.V.; POLYACHENOK, O.G.

New method of synthesizing lower tungsten chlorides. Zhur.neorg.-
khim. 6 no.9:1990-1993 S '61. (MIRA 14:9)

1. Leningradskiy gosudarstvennyy universitet, Khimicheskii
fakul'tet. (Tungsten chloride)

5.2200

26282
S/078/61/006/009/001/010
B107/B101

AUTHORS: Novikov, G. I., Andreyeva, N. V., Polyachenok, O. G.

TITLE: New method for the synthesis of low tungsten chlorides

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 9, 1961, 1990-1993

TEXT: The object for the present study was to elaborate a method permitting the production of larger quantities (kilograms) of low tungsten chlorides. Production by reduction of WCl_6 with hydrogen is not advantageous, and for larger quantities it also requires special apparatus because of the danger of explosion hazard. This study gives theoretical considerations and their experimental confirmation with regard to the reduction of WCl_6 with phosphorus. On the basis of the thermodynamic data (S. A. Shchukarev, G. I. Novikov et al., Referaty dokladov VIII Mendeleyevskogo s"yezda, (Abstracts of the reports from the 8th Mendeleyev Congress), no. 4, sektsiya fiz. khimii, M., 1958, p. 220), a good yield of the compounds WCl_5 and WCl_4

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New method for the synthesis...

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is found to form from WCl_6 and white phosphorus at $200^\circ C$. Moreover, the equilibrium of the reaction $[WOCl_4]_s + (PCl_3)_g = [WCl_4]_s + (POCl_3)_g$ at $200^\circ C$ lies almost entirely on the right-hand side, so that the final reduction product would be free of contaminating oxychloride (s = solid; g = gas). Phosphorus has also the advantage that it may be accurately dosed and the reaction conducted in the evacuated glass vessel. Red phosphorus was used for the experiments and the reaction temperature was therefore raised to $250-300^\circ C$. WCl_6 was prepared by reaction of tungsten with chlorine at $500-600^\circ C$. A glass apparatus (Fig.) was used for preparing low chlorides. WCl_6 and phosphorus were filled into vessel B. For the preparation of WCl_5 , slightly more than the stoichiometrically required quantity of phosphorus was used, slightly less for that of WCl_4 . The vessel is then evacuated and sealed at a. B is heated to $250-300^\circ C$, the volatile PCl_3 and $POCl_3$ are condensed in C. After the reaction, C is

Card 2/4

New method for the synthesis...

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cooled by liquid oxygen and sealed at c. B is further heated to 300-350°C. The volatile WCl_5 is thus driven out to A together with the residual PCl_3 , while the non-volatile WCl_4 remains in B. The apparatus is sealed at b, and the content of A is purified from residual phosphorus chloride by sublimation in vacuum. As shown by analyses, the WCl_5 thus produced contains a maximum of 0.09% phosphorus, WCl_4 a maximum of 0.17% phosphorus. Experiments showed that it is impossible to obtain pure WCl_2 by the same method. At best, the product only contains 1% phosphorus. Some non-volatile tungsten phosphides are supposed to form under these conditions. For the production of WCl_2 , at 400-450°C disproportionation of WCl_4 is therefore recommended: $3 WCl_4 = 2 WCl_5 + WCl_2$. There are 1 figure, 3 tables, and 9 references: 5 Soviet and 4 non-Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet Khimicheskii fakul'tet (Leningrad State University, Chemical Division)

Card 3/4

POLYAK, S.S.

Mechanism of oxidation of hydrocarbons in the gas phase.
II. Degenerate-branched character of the oxidation of propylene. S. S. Polyak and V. Ya. Iatern. *Zhur. Fiz. Khim.* 17, 1001-1003, 1941, preceding abstr.—Rates of oxidation of propylene were studied at 300° (280 mm.) and at 170° (220 mm.); mixts. of propylene, O, and varying amt. of N, CO, CO₂, H₂O, AcOH, ethylene, formaldehyde, and acetaldehyde were used. This reaction is of the branched-degenerate type in the cold-flame and high-temp. regions. The intermediate substance that det. the course of the reaction is acetaldehyde. J. W. L., Jr.

POLVAKOV, M.

The induced oxidation of nitrogen, M. Polyakov.
Compt. rend. acad. sci. U. R. S. S. (N. S.), 4, 35-40 (1958).
The oxidation of N principally to N_2O_4 and N_2O takes place in the presence of an explosion of CH_4 and O_2 or C_2H_2 and O_2 . The reaction was studied by a method used for the formation of H_2O_2 during the explosion of H₂ and O_2 . (C. A. 29, 3586^g, 7764^g, 7770^g and 7777^h).
U R Rushton

POLYAKOVA, N. M.

Study of proteins of the brain by the method of paper electrophoresis. A. V. Palladin and N. M. Polyakova (Biochem. Inst., Kiev). *Doklady Akad. Nauk S.S.S.R.* *Sum* 2

107, 568-70 (1956).—Paper electrophoresis of the aq. sol. materials from cat brain was run in barbital buffer at pH 8.0. Curves of protein fractionation are reproduced. Six main fractions are evident in both grey and white matter. The fractions have mobilities comparable to those of various albumins and globulins of blood serum. Confirmatory electrophoresis on starch confirmed the albumin nature of some of the fractions. G. M. Kosolapoff

Polyakov, P. M.

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✓ Spectrographic determination of impurities in vanadium. 2
P. M. Polyakov and A. K. Rusanov. *Zavodskaya Lab.* 21, 1070-01 (1955). Cf. *C.A.B.* 50, 3890. The analysis of V_2O_5 was carried out with 3 types of C electrodes. (a) Al was detd. by placing 20 mg. V_2O_5 in a hollow 3 mm. in diam., 6 mm. deep, and 1.5-mm. wall thickness and arced against a pointed cathode. The intensification and weakening of Al and V lines (Al 3961.53 and V 3951.96 Å.) occurred simultaneously over a considerable interval of arcing. The curve ΔS vs. $\log C$ covered a concn. range of 0.001-0.3% Al with a probable error of $\pm 12\%$. (b) Powd. V_2O_5 mixed with graphite contg. 4% NiO was placed in hollows of both electrodes identical with the anode of a. The blackening curves of Ni II 2337.80 and Ni I 2457.47 Å. in an a.-c. arc and in a spark indicated an initial rise followed by a drop in temp. The ΔS - $\log C$ curves were satisfactory for the detn. of 0.001% Mn, Mg, and Cu and 0.01% Si and Fe with a probable error of ± 9 -12%. (c) V_2O_5 (40 mg.) mixed with graphite (1:1) contg. 0.5% SnO_2 was placed into half of a large hollow in the anode and arced against a pointed cathode. The evapn. of Sb and Bi was complete in 80 sec. The ΔS - $\log C$ curve enabled the detn. of 0.001% Sb and Cd, 0.004% Pb and As, and 0.01% Bi and Zn with a probable error of ± 11 -12%. P was similarly detd. but without an internal standard. It completely evapd. in 30-45 sec. P (0.02%) was detd. with a probable error of $\pm 11\%$ by the relative blackness of its line 2535.65 Å. The presence of 0.05% Fe interfered with the P detn. I. Benicovitz

PM
PTB
RPH

POLVAKOV, Yu. A.

①
POSSIBILITY OF A TOXIC EFFECT OF HEAVY WATER
ON AGRICULTURAL PLANTS. Yu. A. Polyakov.

Pochvovedenie, No. 7, 25-32(1953) July.

In laboratory experiments with oats and barley it was found that heavy water and heavy hydrogen when contained in the nutrient medium, participated in the vital activity of the plants. D₂O had a negative effect on the growth and development of the plants, proportional to its concentration. This effect was most apparent when the concentration exceeded 30 to 40%. The mechanism causing this negative effect, although it has not been adequately investigated, may be explained by the great physical inertness of heavy water. The article is illustrated by charts and graphs.
(J.S.S.)

10-28-54
RMZ

POLVAUSKII, T. V.

Dulcin, N. E. Logiroy and T. V. Polvauskii. U.S.S.R. 65,779, Jan. 31, 1946. Urea 7 and p-phenetidine 1 part are heated for 1-2 hrs. in the presence of 5 mols. NH_4Cl to give up to 90% yields of dulcin.

M. Hosen

POLYEKTOR, N. S.

2

Fluorimetry, N. S. Polyakov, Zvezdskaya Lab.
21. 1045-64 (1945). -- a review with 112 references.
I. Benicowitz

[Signature]

[Signature]

POLUYANSKIY S.A.

SHTOKMAN, I.G., dotsent, kandidat tekhnicheskikh nauk; MURZIN, V.A.,
kandidat tekhnicheskikh nauk; POLUYANSKIY, S.A., inzhener.

Experimental determination of the propagation speed of resiliency
waves in conveyor chains. Vest.mash. 34 no.2:26-27 F '54.

(MLRA 7:3)

1. Dnepropetrovskiy gornyy institut im. Artema (for Shtokman).
2. Institut gornogo dela Akademii nauk URSS (for Murzin and
Poluyanskiy).
(Conveying machinery)

POLYA, G.

Mathematical Review
June 1954
Analysis

(2)

*Pólya, G., und Szegő, G. Aufgaben und Lehrsätze aus der Analysis. Erster Band. Reihen, Integralrechnung, Funktionentheorie. 2te Aufl. Die Grundlehren der mathematischen Wissenschaften in Einzeldarstellungen mit besonderer Berücksichtigung der Anwendungsgebiete. Bd XIX. Springer-Verlag, Berlin-Göttingen-Heidelberg, 1954. xvi+338 pp. DM 24.00; Ganzleinen DM 27.60.

*Pólya, G., und Szegő, G. Aufgaben und Lehrsätze aus der Analysis. Zweiter Band. Funktionentheorie, Nullstellen, Polynome, Determinanten, Zahlentheorie. 2te Aufl. Die Grundlehren der mathematischen Wissenschaften in Einzeldarstellungen mit besonderer Berücksichtigung der Anwendungsgebiete. Bd XX. Springer-Verlag, Berlin-Göttingen-Heidelberg, 1954. x+407 pp. DM 28.40; Ganzleinen DM 32.00.

The first edition of these two volumes was published in 1925. There are no changes in this edition.

POLYA, Imre, dr.

HOLCZINGER, Laszlo dr.; POLYA, Imre, dr.

Clinical aspects and pathological anatomy of the Waterhouse-Friderichsen syndrome. Orv. hetil. 95 no.32:857-865 8 Aug. 54.

1. A Debreceni Orvostudományi Egyetem Kóronctani és Kórszovettani Intézetének (igazgató: Kellner Béla, dr. egyet. tanár) és Gyermekklinikájának (Kulin László dr. egyet. tanár) közleménye.
(WATERHOUSE-FRIDERICHSEN SYNDROME
clin. & pathol. aspects)

KULIN, Laszlo, dr.; KOVER, Bela, dr.; LENGYEL, Ferenc, dr.; LUDMANY,
Konrad, dr.; POLYA, Imre, dr.; SZEKELY, Katalin, dr.

Cyclic penicillin therapy of scarlet fever as a prophylaxis against
complications due to superinfection. Orv hetil 95 no.17:449-453
Ap '54. (REAL 3:8)

1. A Debreceni Orvostudományi Egyetem Gyermekklinika-jának (igazgató:
Kulin Laszlo dr. egyetemi tanár) közleménye.

(PENICILLIN, ther. use

*scarlet fever, cyclic ther. in prev. of compl.

(SCARLET FEVER, ther.

*penicillin, cyclic ther. in prev. of compl.)

COUNTRY : Hungary
 CATEGORY : H-28
 ABS. JOUR. : REKhim., No. 1959, No. 88386
 AUTHOR : Garaguly, G.; Polya, K.
 INST. :
 TITLE : Study of Molds Most Frequently Encountered
 in Natural Curing of Tobacco
 ORIG. PUB. : Dohanyipar, 1958, okt., 21-28
 ABSTRACT : Among the molds the most widespread and
 detrimental in tobacco manufacture are: Mucor, Racemosus,
 Aspergillus, Glaucus, Aspergillus niger, Penicillium expansum
 and Penicillium glaucum. In addition to morphology,
 anatomy and optimal conditions of proliferation of the
 above-stated molds, results of experiments are presented
 which show that their spores are extremely widespread in
 the areas of tobacco manufacture. Climatic conditions of
 natural curing not only do not decrease, but on the
 contrary increase the viability of the spores.
 S. Rozenfel'd

CARD:

POLYACHEK, E. O., TARASYUK, P. S.,
Pharmacists

Penicillin

Penicillin, 50,000 units in gelatine capsules. Apt.delo no. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

POLYACHEK, YA. B.

h771. POLYACHEK, YA. B. bihiyena i sanitariya v predpriyatiyakh obshchestvennogo pitaniya potrebitel'skoy kooperatsii. m., izd-vo tsentrosoy-
uza, 195h. 72 s.s. ill. 20 sm. (s pomoshch'predsedatelya pravl. sel'po).
25.000 ekz. 1 r 25 k.---(55-435)P (613.6+61h.31): 6h0.22 sm .

SO: Letopis' Zhurnal' nykh Statey, Vol. 7, 1949

POLYAKOV, B.V.

Determining the optima limits of open pit workings. Izv.TPI
93:47-52 '58. (MIRA 13:5)
(Strip mining)

POLYAKOV, B.V.

Horizon and limit values of burden removal coefficients. Izv.
TPI 93:53-58 '58. (MIRA 13:5)

(Strip mining)

POLYACHEK, Yakov Grigor'yevich; PABO, N.V., redaktor; SMIRNOV, G.I.,
tekhnicheskiiy redaktor

[The composition of food products and their caloric content;
tables for computation. Sostav pishchevykh produktov i ikh
kalorinost'; raschetnye tablitsy. Moskva, Gos. uchebno-
pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1956. 182 p.
(FOOD--TABLES, CALCULATIONS, ETC.) (MLRA 10:3)]

IGLYACHEK, I. G.

Ratsional'noe pitanie [Good nutrition]. Moskva, Medgiz, 1952. 42 p. (Nauch.-popul. med. literatura).

SO: Monthly List of Russian Accessions, Vol. 7, No. 3, June 1954.

ACCESSION NR: AT4001511

S/3035/63/000/000/0080/0117

AUTHORS: Polyachenko, A. L.; Kantor, S. A.

TITLE: Time-wise asymptotic propagation of neutrons during pulsed neutron logging

SOURCE: Yadernaya geofizika. Vy*pusk 1963 g. Moscow, 1963, 80-117

TOPIC TAGS: geophysics, geophysical prospecting, neutron asymptotic propagation, pulsed neutron logging, neutron propagation

ABSTRACT: In order to disclose the most important relationships between the reading of a pulsed neutron logging equipment and the parameters of the investigated minerals, the diameter of the well, and the properties of the medium filling the well, a simplified approach is used, in which the pulse source is assumed to be a point emitting thermal neutrons. The differential equations of this boundary problem are solved by the integral transformation method

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ACCESSION NR: AT4001511

with successive application of the direct Laplace transform (with respect to the time), Fourier transform (with respect to the well axis), and Fourier-Bessel transform (with respect to the radial coordinate), and with subsequent inverse transformations. The cases of strong and weak absorption are considered separately. The mathematical results are interpreted physically and an approximate connection is obtained between the diagrams of pulsed neutron-neutron logging and the sought properties of the rocks, and also allow an estimate of the dependence of the relative differentiation of the different beds on the radius of the well, on the parameters of the rocks, on the time, and on other factors. The numerous conclusions resulting from the analysis of the solutions lead to the recommendations that in interpreting the well-measurement data it is necessary to establish first of all whether the absorption is weak or strong, and that weak absorption will be most frequently encountered for most applications of neutron-neutron logging, particularly in the logging of oil and gas wells. Orig. art. has: 13 figures, 135 for-

Card 2/3

POLYACHENKO, A. V.

USSR/Engineering - Metal hardening

Card : 1/1 Pub. 128 - 20/32

Authors : Polyachenko, A. V.

Title : Electro-spark hardening of machine components

Periodical : Vest. mash. 34/7, 65 - 70, July 1954

Abstract : Methods for electro-spark hardening of machine components, are presented. The hardening was conducted on components made of steel mark 2, 45, and U7, using metallo-ceramic electrodes, type VK3, VK6, VK8, T5K10, T15K6, and T6OK6. Five references. Illustrations; graphs; table.

Institution : ...

Submitted : ...

Translation B-82533, 2 Feb 55

Polyachenko, A.V.

USSR/Phase Transformation in Solid Bodies.

E-6

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11728

Author : Polyachenko, A.V.

Inst :

Title : Certain Laws of Electric-Spark Strengthening of Metals.

Orig Pub : Novye metody elektrocheskoy obrabutki Materialov. M.-L.,
Mashgiz, 1955, 352-365

Abstract : No abstract.

Card 1/1

Polyachenko, A. V.

Electrospark Surface Hardening of Machine Parts. A. V. Polyachenko. (Pribl. Mashinostroyeniya, 1955, 34, (7), 65-70). A method of sectioning is described, and depth of hardened layer was determined as well as microhardness. Steels and gray cast iron and a case-hardened steel were tested with sintered carbon electrodes of 7 kinds. Sparking conditions are given and the structures obtained are described. Previous hardness tests have shown a wide range of values and the explanation is given here. Factors involved in the process are considered and the effects described. Service tests on hardened steels were carried out to confirm laboratory findings and showed satisfactory resistance to wear.

PRO 37

POLYACHENKO, A.V., kandidat tekhnicheskikh nauk

Welding cast iron machinery parts. Mekh.i elek.sots.sel'khoz.
17 no.6:52-53 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii
sel'skogo khozyaystva.

(Welding)

(Agricultural machinery--Maintenance and repair)

POLYACHENKO, A.V., kandidat tekhnicheskikh nauk.

Some technological problems in using the electric spark method
for strengthening machinery parts. Trudy VIM 23:135-158 '56.
(MLRA 9:11)

(Metals--Hardening)
(Electric spark)

POLYACHENKO, A.V.

15590* (Electric Spark Hardening of Machine Parts.) Elek-
trokrovoye uprochneniye detaley mashin. A. V. Polyachenko.
Vestnik Mashinostroyeniya, v. 34, no. 7, July 1954, p. 65-70.
Treatment of cutting surfaces. Hardness and resistance to wear.
Electrode compositions. Table, graphs, micrographs. 5 ref.

62

POLYACHENKO, M.M.; BARABANOV, M.I.

Polarographic analysis of caramel obtained from saccharose.
Izv.vys.ucheb.zav.; pishch.tekh. no.5:52-54 '63. (MIRA 16:12)

1. Kiyevskiy tekhnologicheskoy institut pishchevoy promyshlennosti,
kafedra obshchey i neorganicheskoy khimii.

GORB, T.F.; POLYACHENKO, M.M.; PRIKHOD'KO, I.A.; LUGOVAYA, L.N.

Investigation of the suitability of Ukrainian kieselguhrs to
the needs of the sugar industry. Trudy KTIPP no.21:23-30 '59.
(MIRA 14:1)

(Kieselguhr)

(Sugar manufacture)

Polyachenko, M. M.

Cryoscopic investigations of lime-sugar-water systems.
I. A. Shcheka, M. M. Polyachenko, and I. I. Sokova. *Trudy
Tehhnol. Inst. Prikladn. Prom. im. A. I. Mikoyana* 16,
227-34 (1958).—Sols. contg. sugar (0.1, 0.2, 0.3 and 0.4
mol./kg.) and varying amts. of CaO (from 0 to satn.) were
investigated cryoscopically. The f.p. was initially rapidly
reduced in 0.1M sols. of sucrose when CaO was introduced,
but was more slowly depressed with increasing proportions
of CaO to sucrose. The f.p. curve of sols. contg. concns.
of 0.2, 0.3, and 0.4 mol./kg., with the addn. of increasing
amts. of lime, was initially reduced, terminating at a min.
and then increasing. The cryoscopic curves obtained sug-
gested that low concns. of sugar and lime in soln. for the
most part form $C_{12}H_{22}O_{11}CaOH$, and that larger concns.
form this compd. and 2 more complicated compds., such
as $(C_{12}H_{22}O_{11})_2Ca$ or $C_{12}H_{22}O_{11}Ca-O-CaC_{12}H_{22}O_{11}$. These
compds. in the soln. are solvated by the water.

H. A. McComb

ACCESSION NR: AP4012450

S/0078/64/009/002/0472/0475

AUTHORS: Novikov, G. I.; Polyachenok, O. G.; Frid, S. A.

TITLE: Fusibility diagrams of systems formed by samarium and ytterbium di- and trichlorides with potassium chloride

SOURCE: Zhurnal neorg. khim., v. 9, no. 2, 1964, 472-475

TOPIC TAGS: samarium dichloride, samarium trichloride, ytterbium dichloride, ytterbium trichloride, potassium chloride, binary chloride fusibility, fusibility diagram

ABSTRACT: This work resulted from the lack of data on the stabilizing action of alkali halides on the dihalides of rare earths. The formation of solid phase compounds was observed and complexes were traced in the liquid and gaseous phases of trichlorides. Since there also is no literary data on the effect of KCl on rare earth dichlorides, fusibility tests of Sm and Yb di- and trichlorides with KCl were made and fusibility diagrams plotted. It was found that the solid state compound $\text{KCl} \cdot 2\text{SmCl}_2$ decomposes during melting, while $\text{KCl} \cdot \text{YbCl}_2$ melts without decomposition. There is a similarity of

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ACCESSION NR: AP4012450

these fusibility diagrams with those of $\text{SrCl}_2\text{-KCl}$ and $\text{CaCl}_2\text{-KCl}$ due to the similarity of ionic radii of Sr^{2+} - Sm^{2+} and Ca^{2+} - Yb^{2+} (1.27 and 1.06 Å). The $\text{SmCl}_3\text{-KCl}$ system showed, in addition to the $3\text{KCl}\cdot\text{SmCl}_3$ and $2\text{KCl}\cdot\text{SmCl}_3$ (already known), a new compound $\text{KCl}\cdot 2\text{SmCl}_3$, while the $\text{YbCl}_3\text{-KCl}$ system forms only $3\text{KCl}\cdot\text{YbCl}_3$. Complex ions were observed in the liquid state. It was also found that a marked influence of KCl on the relative stability of rare earth di- and trichlorides can only be expected for neodymium dichloride. Orig. art. has: 2 Figures.

ASSOCIATION: Leningradskiy gosudsarstvennyy universitet, khimicheskoy fakultet (Leningrad State University, Department of Chemistry)

SUBMITTED: 04Jun63

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CH

NR REF SOV: 007

OTHER: 005

Card 2/2

POLYACHENOK, O.G.; NOVIKOV, G.I.

Thermodynamic study of di- and trichlorides of rare-earth elements.
Vest. LGU. 18 no.16:133-134 '63. (MIRA 16:11)

KRYUKOV, Aleksey Dmitriyevich; VORONKOV, K.N., inzh., retsenzent; POLYA-
CHENKO, V.A., inzh., retsenzent; NOSOV, N.A., kand. tekhn. nauk,
red.; POMICHNEV, A.G., red. izd-va; BARDINA, A.A., tekhn. red.

[Thermal analysis of motor vehicle transmissions] Teplovoi raschet
transmissii transportnykh mashin. Moskva, Gos.nauchno-tekhn. izd-
vo mashinostroit. lit-ry, 1961. 139 p. (MIRA 14:6)
(Motor vehicles--Transmission devices)

ACCESSION NR: AP4019245

S/0056/64/046/002/0755/0763

AUTHORS: Kirzhnits, D. A.; Polyachenko, V. L.

TITLE: Possibility of macroscopic manifestations of violation of microscopic causality

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 755-763

TOPIC TAGS: relativity, gravitation, cosmology, microscopic causality condition, superluminal signal, special relativity, superluminal sound, gravitational collapse, noncausal theory

ABSTRACT: The possible appearance of superluminal signals in the kinematics of special relativity is discussed. Conditions which the particle mass must satisfy in order for such signals to actually arise are determined, and the propagation of superluminal sound, which acquires a macroscopic character in strongly compressed matter, is described by means of a time-like mass tensor. A field-theoretical model which leads to an unlimited increase in the ratio of the pressure to the energy density and by the same token to an increase in the ratio of the velocity of sound to the velocity of light is

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ACCESSION NR: AP4019245

considered. It is established that sufficiently strong violation of microscopic causality leads to an elimination of the gravitational collapse (to contraction of a body of large mass or of a world to a point). The paper contains an analysis of the principal feasibility of constructing a non-causal theory and of a few macroscopic effects due to non-causality. "The authors are deeply grateful to I. Ye. Tamm and V. L. Ginzburg for reviewing the manuscript and for valuable remarks, to A. D. Sakharov and Ye. L. Feynberg for a discussion of the work, to Ya. B. Zel'dovich for stimulating criticism, and to T. A. Eminadze for discussions which have led to the writing of this paper." Orig. art. has: 22 formulas.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva AN SSSR
(Physics Institute, AN SSSR)

SUBMITTED: 25Jul63

DATE ACQ: 27Mar64

SUB CODE: PH

NO REF SOV: 010

ENCL: 00

OTHER: 002

Card 2/2

POLYACHENKO, V.M.; SAMDKHVALOV, G.I.

Complex lipids. Preparation of phosphorylated derivatives of N-pthaloylserine. Zhur.ob.khim. 34 no.2:554-556 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.

POLYACHENKO, V.M.; SAMOKHVALOV, G.I.

Semimicrodetermination of the iodine number of synthetic
(α -oleyl- β -stearoyl)-phosphatidylethanolamine. Zhur. anal.
khim. 19 no. 1:136-137 '64. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut,
Moskva.

Polymerizatsiya

GORBACHEVA, I.N.; VARNAKOVA, L.P.; MONICH, N.V.; POLYACHENKO, V.M.; ROMANOVA,
A.S.; TUL'CHINSKAYA, L.S.; SHVARTSBERG, M.S.

Synthesis of substituted 1-benzyl-3,4-dihydroisoquinolines. Zhur.
ob. khim. 27 no.8:2276-2282 Ag '57. (MIRA 10:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.
(Quinoline)

POLYACHENKO, V.M.; SAMOKHVALOV, G.I.; PREOBRAZHENSKIY, N.A.

Investigation in the field of complex lipides. Synthesis of
(*D*-oleoyl-*β*-stearoyl) phosphatidylethanolamine. Zhur.ob.khim.
32 no.2:396-399 F '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.
(Cephalins)

JSSR/Organic Chemistry. Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11334.

Author : Gorbacheva, I.N., Varnakova, L.P., Monich, N.V., Polyach-
enko, V. M., Romanova, A. S., Tul'chinskaya, L.B., and
Shvartsverg, M.S.

Inst :

Title : Synthesis of Substituted 1-Benzyl-3,4-dihydroisoquinolines

Orig Pub: Zhur Obshechey Khim, 27, No 8, 2276-2282 (1957)

Abstract: The acylation of 4-hydroxyphenylacetic acid (I) or of its ester (II) and the condensation of II with $\text{CH}_3\text{OCH}_2\text{Cl}$ in CH_2OH in the presence of CH_3ONa or the condensation of I with ClCOOCH_3 in alkaline solution have been used to synthesize derivatives of I of the type $p\text{-ROC}_6\text{H}_4\text{CH}_2\text{COOR}'$ (IIIa-e) (R, R', the yield in %, and the mp in $^\circ\text{C}$ or bp in $^\circ\text{C}/\text{mm}$ are given below): (a) COCH_3 , CH_3 , 70, 139-140/4; (b)

Card : 1/3

Polyachenko, V.M.

Distr: 4/213/4E3d/4E2o(3)

Synthesis of substituted 1-benzyl-3,4-dihydroisoquinolines. I. N. Morgacheva, L. P. Varakova, V. V. Morozh, V. M. Pavlov, A. S. Romanova, L. S. Tikhonkaya, and M. S. Shwartsberg (Inst. Fine Chem. Technol., Moscow). *Zhur. Obshch. Khim.* 27, 2275-82 (1957). Heating Me *p*-hydroxyphenylacetate in pyridine with As_2O_3 1 hr. gave after treatment with dil. H_2SO_4 and dil. NaOH 70% Me *p*-acetoxypheylacetate (I), b. 139-40°; similarly BzCl gave with *p*-hydroxyphenylacetic acid and KOH 92.4% 4-benzoyloxyphenylacetic acid (IIa), m. 154-5°; use of Me *p*-hydroxyphenylacetate similarly gave 98.5% Me *p*-benzoyloxyphenylacetate (II), b. 145-6°, m. 81-2°. Reaction of 1.2 g. Na in abs. MeOH with 8.3 g. Me *p*-hydroxyphenylacetate gave, after treatment of the mixt. with 4 g. ClCH_2OMe over 5 hrs. with ice cooling and stirring 10 hrs. at room temp., 66.6% Me *p*-methoxymethoxyphenylacetate (IIa), b. 120-1°. Treatment of 2.5 g. *p*-hydroxyphenylacetic acid with 1.35 g. NaOH, 35 ml. H_2O , and at 0° with 1.7 g. MeO_2CCl gave after treatment with aq. HCl 82.7% 4-carbomethoxyphenylacetic acid, m. 98-7°. I (1.04 g.) heated in pyridine with 1.3 g. 2-(3-methoxy-4-benzoyloxyphenylethylamine (III) gave *N*-(3-methoxy-4-benzoyloxyphenylethyl)acetamide, m. 109-10°. II similarly gave 2-(3-methoxy-4-benzoyloxyphenylethylamide of benzoic acid, m. 131-2°. Treatment of III HCl salt with BzCl and NaOH in H_2O -CHCl₃ gave 98% 2-(3-methoxy-4-benzoyloxyphenylethylamide of benzoic acid, m. 130-2°, identical with the above. Ia (0.41 g.) and 1.15 ml. SOCl_2 heated 2 hrs., evapd., dissolved in CHCl_3 , and treated with III gave 73.4% 2-(3-methoxy-4-benzoyloxyphenylethylamide (IV) of Ia, m. 142-3°. Heating III with IIa in presence of pyridine 4 hrs. at 155-60° gave

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2

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23.6% 2-(3-methoxy-4-benzoyloxyphenyl)ethylamide of 4-methoxyphenylacetic acid (V), m. 66-7°. Similarly was obtained 41% 2-(3-methoxy-4-benzoyloxyphenyl)ethylamide of 4-carboxyphenylacetic acid, m. 102-4°. III and p-chlorophenylacetic acid gave 72% 2-(3-methoxy-4-benzoyloxyphenyl)ethylamide of p-chlorophenylacetic acid, m. 124-6° similarly was prepd. the analogous amide of p-nitrophenylacetic acid, m. 132-3°, 51.7%. Heating III with Me 3,4-dimethoxy-5-bromophenylacetate in pyridine gave 34.2% 2-(3-methoxy-4-benzoyloxyphenyl)ethylamide of 3,4-dimethoxy-5-bromophenylacetic acid, m. 125-7°. Heating IV with POCl₃ in MePh 1.5 hrs., concg., and treating the residue with EtOH gave 1-phenyl-5-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline HCl salt, m. 212-13°. Similarly, POCl₃ in CHCl₃ treated with V yielded 58% 1-(4-methoxymethoxybenzyl)-6-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline HCl salt, m. 205-7°. Similarly was prepd. 1-(p-nitrobenzyl)-6-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline HCl salt, 85%, m. 206-7°. By means of POCl₃ in MePh the appropriate amide was converted as above to 88% 1-(p-carbonmethoxybenzyl)-5-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline HCl salt, m. 148-7° and 68.3% 1-(3-bromo-4-methoxybenzyl)-6-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline HCl salt, decomp. 207-8° (picrate, m. 185-6°). Similarly was prepd. 1-(3,4-dimethoxy-5-bromobenzyl)-6-methoxy-7-benzoyloxy-3,4-dihydroisoquinoline, isolated as the picrate, m. 193-4°.

G. M. Kosolapoff

POLYACHENKOVA, V.S., inzh.

Map of glazed-frost spreading and recommendations for
preventing slipperiness of roads. Avt.dor. 25 no.4:16,20
Ap '62. (Roads) (Frost) (MIRA 15:5)

ACCESSION NR: AP3003486

S/0078/63/008/007/1785/1786

AUTHOR: Polyachenok, O. G.; Novikov, G. I.

TITLE: On the pressure of saturated vapor in the LaCl_3 -La, PrCl_3 -Pr, and NdCl_3 -Nd systems

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1963, 1785-1786

TOPIC TAGS: rare earths, rare earth chlorides, lanthanum, praseodymium, neodymium, PrCl_3 , NdCl_3 , LaCl_3 , vapor pressure, solubility, boiling-point method, heat of reaction, Pr(II), Nd(II)

ABSTRACT: The vapor pressure of the PrCl_3 -Pr, NdCl_3 -Nd, and LaCl_3 -La systems and the solubility of the rare earths in the chlorides of these systems were determined in the 1130—1350°C range. The vapor-pressure samples weighing 0.1—0.2 g were measured by the "boiling-point" method in heavy-walled quartz ampoules lined with molybdenum to prevent reaction of the rare earths with quartz. Vapor-pressure diagrams plotted (see Enclosure), indicate that

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ACCESSION NR: AP3003486

dissolution of atomic La occurs and that ions of Pr(II) and Nd(II) form in the melt. In all three systems the trichloride was the only compound to vaporize. Instability of the dichlorides in the vapor phase is probably associated with their high heat of vaporization. The positive deviation from Raoult's law observed in the PrCl_3 -Pr system may be attributed to the presence of some atomic Pr. The experimental heat of vaporization in the single-phase region was close to that of the pure chlorides (LaCl_3 , PrCl_3 , and NdCl_3), indicating that the overall heat effect of processes occurring during the dissolution of the trichlorides in the melt was close to zero. The difference between the heat of vaporization of the pure trichlorides and that of NdCl_3 and PrCl_3 in the phase-separation region is governed by the heat of reaction of the disproportionation of the dichlorides. The latter was found to be 38 ± 10 kcal for NdCl_2 at an average temperature of 1250°C , and 24 ± 10 kcal for PrCl_2 at an average temperature of 1230°C . For thermodynamic calculations from the data obtained on the disproportionation of the dichlorides, more precise information concerning the nature of ions formed in the melt on dissolution of the metals, as well as experimental data on

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ACCESSION NR: AP3003486

specific-heat of the trichlorides and dichlorides, would be required. Orig. art. has: 1 figure.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet. Khimicheskiy fakul'tet (Leningrad State University, Chemistry Faculty)

SUBMITTED: 27Dec62 DATE ACQ: 02Aug63 ENCL: 02

SUB CODE: 00 NO REF SOV: 004 OTHER: 002

Card 3/5

ACCESSION NR: AP3003486

ENCLOSURE: 01

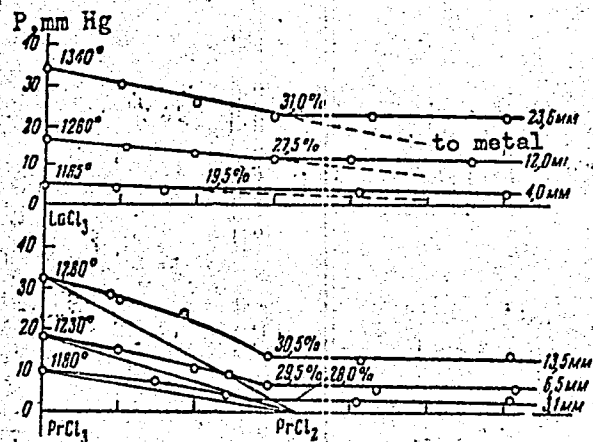


Fig. 1. Vapor pressure in the LaCl_3 -La and PrCl_3 - Pr_2 systems.

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ACCESSION NR: AP3003486

ENCLOSURE: 02

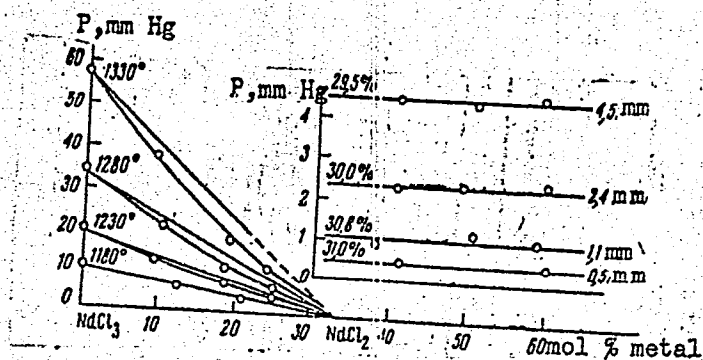


Fig. 2. Vapor pressure in the NdCl₃-Nd system

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POLYACHEK, Ya.

What you ought to know about vitamin "C". Obshchest.pit.
no.3:26-27 Mr '62. (MLA 15:4)
(Ascorbic acid--Therapeutic use) (Cookery)

GLADILIN, A.A.; GLUKHOV, D.S.; YEREMIN, V.I.; ZVEREVA, N.F.; LAPIN, K.N.;
MAMONOVA, A.S.; MARTYNOV, M.K.; CHIRKOV, N.Ye.; MIKHAL'CHIKOV,
P.I.; POLYACHKIN, M.A., red.; ANTONOV, V.P., tekhn. red.

[Economy of Penza Province; a statistical collection] Narodnoe
khoziaistvo Penzenskoi oblasti; statisticheskii sbornik. Penza,
1958. 190 p. (MIRA 11:11)

1. Penzenskaya oblast'. Statisticheskoye upravleniye. (for all except
Mikhal'chikov and Antonov).

(Penza Province--Statistics)

POLYAK, A.A.; MARTYSHOVA, G.A.; SOLODOVNIKOV, V.G.; BRAGINA, Ye.A.;
KONDRAT'YEV, V.A.; UL'RIKH, O.D.; ZABLOTSKAYA, A.I.;
SAVEL'YEV, N.A.; POKATAYEVA, T.S.; AVARIN, V.Ye., otv.red.;
PANTELEYEV, V.I., red.izd-va; ASTAF'YEVA, G.A., tekhn.red.

[Industrialization problems of the sovereign underdeveloped countries of Asia (India, Indonesia and Burma)] Problemy industrializatsii suverennykh slaborazvitykh stran Azii (Indiia, Indoneziia, Birma). Moskva, Izd-vo Akad.nauk SSSR, 1960.
436 p. (MIRA 14:2)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy. 2. Sektor stran Yugo-Vostochnoy Azii i Dal'nego Vostoka Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy Akademii nauk SSSR (for all except Avarin, Panteleyev, Astaf'yeva).
(Asia, Southeastern--Industrialization)

POLYAK

POLAND / Chemical Technology. Synthetic Polymers. H
Plastics.

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75720.

Author : Polyak, Bortel.

Inst : Not given.

Title : The Phenolic Formaldehyde Ion Exchange Resins.
I. The Synthesis of Phenol Sulfonic Cationite.

Orig Pub: Przem. chem., 1957, 13, No 11, 660-664.

Abstract: The method for preparing the cationite of a phenol sulfonic type was developed. This is done by the reaction of the phenol sulfonic acid with formaldehyde in an acidic medium at a temperature of approx. 20°C. The n-phenol sulfonic acid was prepared from a phenol and sulfuric acid in a ratio of 1:1.15; a ratio of

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71

POLYAK, A.B.; TATEVOSYAN, Ye.L.; KUPTSAN, N.A.; MEOS, A.I.

Changes in the conformation of cellulose links occurring during
mercerization and pre-ripening. Khim. volok. no.4:38-41 '64.
(MIRA 18:4)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova (for Polyak).
2. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta iskusstvennogo volokna (for Tatevosyan, Kuptsan).
3. Leningradskiy institut tekstil'noy i legkoy promyshlennosti im.
S.M.Kirova (for Meos).

POLYAK, A.

USSR (600)

Engines - Testing

Tuning and testing of the engine of a self-propelled combine. MTS, 12, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

FARIZOV, I.O.; MEDOVYY, A.I.; MAKSIMOV, M.A.; MASLOV, A.A.; MUSSO, S.;
BOGDANCHIKOV, M.M.; VARENTSOV, K.M.; AVARIN, V.Ya., otv. red.;
POLYAK, A.A., otv. red.; TRINICH, F.A., red. izd-va; VOLKOVA,
V.V., tekhn. red.

[Agrarian-peasant question in the independent underdeveloped
countries of Asia; India, Burma, Indonesia] Agrarno-krest'ianskii
vopros v suverennykh slaborazvitykh stranakh Azii; Indii, Birma,
Indoneziia. Moskva, 1961. 353 p. (MIRA 14:6)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhd narodnykh
otnoshenii.
(Asia, Southeastern--Agriculture--Economic aspects)

POLYAK, A.A.; ASLANOV, M.G., redaktor; KUZNETSOV, A.A., redaktor; TARASENKO, P.I., tekhnicheskiiy redaktor

[Physical geography of Afghanistan] Fizicheskaya geografiya Afganistana; uchebnoe posobie. [Moskva] Izd-vo Moskovskii institut vostokovedeniya, 1953. 274 p. (MLRA 9:2)

(Afghanistan--Physical geography)

OSTROVSKIY, Abram Semenovich; KARPOV, F.F., retsenzent; POLYAK, A.B., red.;
BORUNOV, N.I., tekhn. red.

[Overall automatic and remote control of the water supply systems of
industrial enterprises] Kompleksnaia avtomatizatsiia i telemekhani-
zatsiia sistem vodosnabzheniia promyshlennykh predpriatii. Moskva,
Gos. energ. izd-vo, 1961. 166 p. (Biblioteka po avtomatike, no.28)
(Automatic control) (Remote control) (MIRA 14:7)
(Water—Distribution)

L 33032-66 EWT(1) RO

ACC NR: AP6024160

SOURCE CODE: UR/0020/65/164/003/0598/0601

AUTHOR: Chudakov, M. I.; Antipova, A. V.; Polyak, A. B.; Raskin, M. H.

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B

ORG: All-Union Scientific Research Institute of the Hydrolysis and Alcoholic Sulfite Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti)

TITLE: Obtaining quinonic nitropolycarboxylic acids -- plant growth stimulants -- from hydrolytic lignin

SOURCE: AN SSSR. Doklady, v. 164, no. 3, 1965, 598-601

TOPIC TAGS: hydrolysis, plant growth, organic nitro compound, molecular weight, quinone, chemical reactor, polysaccharide, solvent extraction, chemical precipitation, polycarboxylic acid, biochemistry, oxidation

ABSTRACT: The authors have developed and applied a method of fractional, gradual oxidation and hydrolysis of condensed lignin with nitric acid in an aqueous medium at 100°. The gradual introduction of the oxidant in the reaction mixture leads to a minimum breakdown in the quinonic acids formed and permits the process to be carried out for a small consumption of oxidant. As the object of the investigation, different kinds of technical lignins subjected to prolonged condensation treatment were used. Lignin (lignin content, according to Konig, was 85 - 90%, OCH₃ -- 4.7 - 5%) in the amount of 500 grams in 5 liters of water -- was placed into a stainless steel reactor fitted with cooling coils, a reflux condenser, a mixer, and an electric heating attachment. The suspension of lignin in water was heated to 100°. After the mixer had stirred the mixture gradually

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0915 1748

L 33032-66

ACC NR: AP6024160

for six hours, nitric acid (1.35) was added in the amount of 0.75 kg (based on the calculation for the monohydrate), with a gradual supply of heated air into the lower part of the reactor. The reaction proceeded vigorously with the evolution of gaseous products and in some cases required cooling. At the completion of the reaction, the solution containing only traces of nitric acid was filtered free of the insoluble residue and was neutralized with calcium carbonate to pH 2.8 - 3. In order to isolate the quinonic acids, the solution was further extracted with methylethylketone. The extract was dried with sodium sulfate. After separation of a larger part of the solvent in vacuum, a thick syrup was poured into dry petroleum ether. The precipitating dark-red oil was separated from the other, dried in a vacuum drier at 40° and in a vacuum dessicator over alkali, and then over phosphoric anhydride for a period of a week. The yield was up to 30% of the lignin weight used. The resulting brick-red, very hygroscopic powder dissolved readily in water and in polar organic solvents.

In investigating its properties, the fraction dissolved when heated in dioxane was used. The product was titrated potentiometrically in an aqueous solution as a strong acid. Its molecular weight (cryoscopically determined) in dioxane was 286. The gram-equivalent was 132. The content of carboxylic groups in the molecule is approximately two. Elemental composition (in %) was as follows: C -- 45.1, H -- 3.74, O -- 45.84, and N -- 5.32.

Upon comparison of experimental and calculated data (elemental composition, molecular weight, gram-equivalent, and infrared spectra), it is assumed that the products obtained by the authors can be classed as quinonic nitropolycarboxylic acids. This paper was presented by Academician A. L. Kursanov on 23 November 1964.

Orig. art. has 2 figures. [JPRS]

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SUBM DATE: 19Nov64. / ORIG REF: 006 / OTH REF: 006

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ANASTASIYEV, F.I.; IROSTRE, A.A.; VESHENEVSKIY, S.N.; GEL'MAN, G.A.;
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APATOVSKIY, Lev Yefimovich. Prinsipali uchastiye:
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1. Leningradskaya lesotekhnicheskaya akademiya imeni Kirova.
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(Nitrogen oxides)
(Spectrum, Infrared)

KURLYANKINA, V.I.; POLYAK, A.B.; KOZ'MINA, O.P.

Mechanism of the oxidation of cellulose ethers by oxygen. Part 7:
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spectroscopy in the analysis of oxidized ethylcellulose.
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1. Institut vysokomolekulyarnykh soyedineniy AN SSSR; Lesotekhnicheskaya akademiya im. Kirova.
(Cellulose--Spectra)

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Oxidation of organic compounds through a palladium membrane.
Elektrokhimiia 1 no.8:968-974 Ag '65. (MIRA 18:9)

1. Institut elektrokhemii AN SSSR.

L 00916-66 EWT(m)/ENG(m)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) DS/JD/JG/RM

ACCESSION NR: AP5020387

UR/0364/65/001/008/0968/0974
541.13

AUTHOR: Polyak, A. G.; Vasil'yev, Yu. B.; Bagotskiy, V. S.
55 55 55

TITLE: Oxidation of organic substances through a palladium membrane
55 27

SOURCE: Elektrokimiya, v. 1, no. 8, 1965, 968-974

TOPIC TAGS: formic acid, formaldehyde, oxidation, electrochemistry, palladium

ABSTRACT: The diffusion of hydrogen (produced during chemisorption of formic acid and formaldehyde) through a palladium membrane was studied. It was found that the activity of the palladium membrane depends to a significant extent on its pretreatment. In this work the membrane was heated in an oxidizing bunsen burner flame, washed with 1:1 HCl and twice with distilled water. After pretreatment the membrane was tightly mounted between the ground surfaces of two different cells. When the cells on both sides of the membrane contained the same solution, the potential difference did not exceed 10 mv. Formic acid or formaldehyde was introduced into one of the cells and the potential shift was recorded on both sides of the membrane on two S1-19 oscillographs. It is believed that the membrane potentials on both sides

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are controlled by the equilibrium between the adsorbed hydrogen and hydrogen ions in the solution:



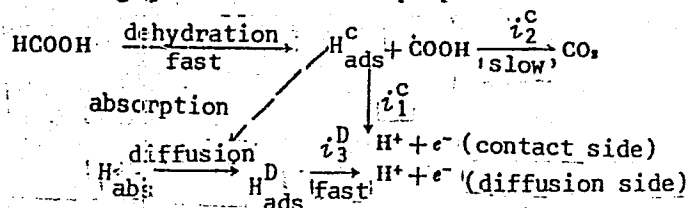
Electrooxidation of formic acid and formaldehyde through a palladium membrane was studied. On the diffusion side the membrane was anodically polarized by an electronic potentiostat, usually at $\phi_r = 0.6$ v. When there was no organic substance on the contact side of the membrane a weak cathode current was observed in the diffusion side of the cell. When the organic substance was introduced into the solution on the contact side of the cell an anode current began to flow through the diffusion side of the cell. When this solution was replaced again by 7N KOH or 1N H₂SO₄ without the organic substance, the diffusion current dropped to zero. This behavior was reproducible upon numerous trials (see fig. 1 of the Enclosure). The anode current in the diffusion part of the cell which occurs in the presence of organic substance in the contact part of the apparatus results only due to ionization of hydrogen which diffuses through the palladium membrane. It is shown that the occurrence of hydrogen on the diffusion side of the membrane is explained only by the dehydrogenation of formic acid during chemisorption on the membrane. It is shown that the oxidation current through the membrane is determined by the rate of formation of the

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adsorbed hydrogen and competition of relatively fast ionization processes of the adsorbed hydrogen on the contact side, absorption by palladium and diffusion to the other side. The following general scheme is proposed:



"The authors express their gratitude to A. N. Frumkin for valuable discussion and I. A. Bagotskaya for consultation and help in the organization of this work." Orig. art. has: 6 figures.

ASSOCIATION: Institut elektrokhemii Akademii nauk SSSR (Institute of Electrochemis-
try, Academy of Sciences, SSSR)

SUBMITTED: 16Mar65

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ENCLOSURE: 01

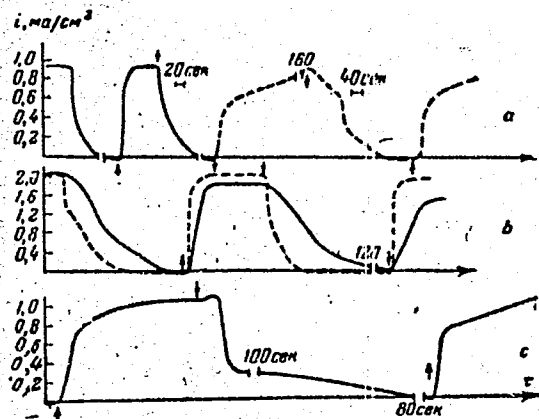


Fig. 1. Measurement of hydrogen ionization current at $\phi = 0.60$ v on the diffusion side of the membrane upon introduction (↑) and removal (↓) of formic acid (a, b) and formaldehyde (c) on the contact side of the cell.

- | | |
|-------------------------------------|--------------------|
| a) 1--0.9 N H_2SO_4 1.8 M $HCOOH$ | $\delta = 30 \mu$ |
| 2--2.5 N KOH + 3.4 M $HCOOH$ | |
| b) 0.1 N H_2SO_4 + 1.8 M $HCOOH$ | $\delta = 10 \mu$ |
| c) 5.4 N KOH + 3 M CH_2O | $\delta = 100 \mu$ |
| | $\delta = 30 \mu$ |

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Mechanism of antibody production by lymphoid tissue. Pat. fiziol.
i eksp. terap. 7 no.6:24-27 R&D '63. (MIRA 17:7)

1. Iz kafedry patofiziologii (zav. - prof. A.N. Cordiyenko)
Rostovskogo meditsinskogo instituta.

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S/241/62/010/010/005/007
D296/D307

27.02.0

AUTHOR: Polyak, A.I.

TITLE: Changes in the immunological reactivity and morphological structure of lymphoid tissue at different stages of radiation injury

PERIODICAL: Meditsinskaya radiologiya, v. 10, no. 19, 1962, 51-54

TEXT: The way in which ionizing radiation suppresses the immunogenesis is still the object of discussion. The author tried to follow up the immunological reactivity of lymphoid tissue at various stages of radiation injury in the irradiated animal itself as well as after transplantation of irradiated lymphoid tissue into a healthy, nonirradiated animal, a method employed for the first time. Rabbits were exposed to the x-rays in a dose of 500 r, and were immunized by a single injection, of a suspension containing 2000 million organisms from a 1 day old Escherichia coli culture, into the hind leg. Tissue from a popliteal lymph node was then investigated histologically and serologically and was partly transplanted into the anterior eye chamber of a healthy rabbit where the changes could be observed with-
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Changes in the immunological ...

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out interference by the toxic products circulating in the irradiated rabbit. In the first group, immunized 3 days before the irradiation, marked degenerative changes occurred: loss of follicular structure, granulation round the plasma cells, and numerous Russel bodies could be seen. Numerous transition forms and mature plasma cells represented evidence for a normal immunological response. The antibody titre increased 36 times above control values. In the second group, immunized 10 days after the irradiation the degenerative changes were at their peak, immature and mature plasma cells were still present, but the most radiosensitive elements, the cells of the cambial layer, which are alone capable of forming new plasma cells, had disappeared. The antibody titre had increased only 3 times above control level. In the 3rd group, immunized 1 month after the irradiation, a great number of cambial cells could be seen, but the time had apparently been insufficient to permit their maturation into plasma cells, producing antibodies as the titre had increased only 10 times above control level. There is 1 figure. ✓

ASSOCIATION: Kafedra patofiziologii i kafedra rentgenologii i radiologii Rostovskogo meditsinskogo instituta (Department of Pathological Physiology and Department of Roentge-

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CHEL'TSOV, Mikhail Ivanovich; SLOBODKIN, Dmitriy Savvich; FADEYEV, Yevgeniy Ivanovich; SKIRGELLO, Ol'gerd Boleslavovich; POLYAK, Aron L'vovich; ZHUK, Boris Vasil'yevich; POLYAKOV, Nikolay Mikhaylovich; NIKOLAYENKO, Aleksey Timofeyevich; FAYNBERG, Grigoriy Solomonovich; YUDITSKIY, Grigoriy Izrailevich; DOROSHENKO, Grigoriy Nesterovich; TRUPAK, N.G., prof., doktor tekhn. nauk, obshchiy red.; SMIRNOV, L.V., red.izd-va; KONDRAT'YEVA, M.A., tekhn.red.

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